

# Gremlin Industries: A national leader in developing and making games people play

By Don Triggheff

Some employers might frown on the practice, but Frank Fogelman pays his people to play games.

One man's game, of course, is another man's business, and Fogelman is that man. As founder and president of Gremlin Industries, touted as the third largest video game manufacturer in the world, he pays his people not only to play games, but to make them and market them as well.

In its eight years of existence, Gremlin has produced about fifteen different video games, usually one or two at a time. It takes six months to a year to bring an idea for a game to the point where it's ready to be put on the market. While the company's one or two completed packages are going through the production and marketing, anywhere from two to five more concepts are being researched and tested. Research and design runs between \$150,000 and \$250,000 per game.

Video games like nothing more than a harmless diversion of little significance, but behind the small and amusing piece of machinery one might fiddle with at a bar or penny arcade is a billion-dollar business. For the industry's leader, Atari, that means somewhere between \$100 and \$200 million in sales each year.

At Gremlin, the total is somewhat lower, but still high enough to produce what Fogelman calls "a highly profitable business." Gremlin is a wholly-owned subsidiary of Sega, so total sales and profits are not public record. A reliable source, however, offered that sales for the past year have exceeded \$30 million.

The industry appears strong now, and along with it, Gremlin's position within, but, as one Gremlin staffer recalled, "things have not always been sound in video games."

In the mid-1970s, there were about 40 companies in the brand new video-games industry. A downturn in the industry proved so severe that today's half-dozen survivors had trouble staying alive.

For Gremlin, the strength to hold together came from Sega, a subsidiary of Gulf and Western, which bought its

way into control, bringing with it the capital needed to keep the company going. Sega was already involved with its own video game company, also called Sega, in Tokyo.

"The business is booming again," Fogelman said, "and although I see a lot of expansion and new companies coming along — like with any growing area of business — I don't see us reaching the point where (the industry will include) close to 40 companies again."

Gremlin reflects the growth of the industry, taking up four buildings in the Kearny Mesa industrial area, and employs over 400 people.

The company actually started 10 years ago, but didn't enter the games market until 1972. A small group of engineers, led by Fogelman and Carl Grendel, formed the corporation in the hopes of success while producing food-timing equipment for Jack-In-The-Box, and oceanographic equipment for the Scripps Institute. The products were similar to those manufactured by a company Fogelman had founded 10 years earlier, Aero Marine.

Fogelman had seen the development of sophisticated machinery since his early years out of the University of Tennessee, when he came to San Diego to work for General Dynamics, Convair. He and the others in his group felt there was a way to commercialize on their expertise.

"We came up with the idea of video games after observing the state of the art in the eastern block cities," Fogelman recalled. "We thought it would be a good direction to go in."

The company spent eight months in 1972 researching and developing a game it felt would be successful, and by 1973, it was ready with its first, "Play Ball," a first generation video game with a baseball theme.

The game was well received, and Gremlin throttled to full speed into what is known as "the amusement industry."

The company name, Gremlin, appears initially to be perfectly suited for its current product line, but the name actually came about through a mistake.

"We can attribute our name to a bureaucrat in Delaware who was hard of hearing," Fogelman said. He and



Fogelman at the controls

Carl Grendel planned to combine their names and call their company "Grendelman." But the mistake was made during incorporation in Delaware, when the company name became "Gremlin."

It turned out to be a fortunate error, especially since Grendel is no longer part of what could have been "Grendelman Industries," having sold out to Gene Candalone and Gerald Hansen, two more engineers who were around at the beginning.

It takes about a year to bring an engineer's brainstorm to the finished product stages. (The engineer) first has to write a description of the way the game will be played," Fogelman said, "and then we have to develop the game itself."

"Remember, we're talking about a sophisticated piece of equipment here. Each of these machines is a full-fledged computer."

Gremlin has even converted one of its games, called "Frogs", to control energy management and security. All the doors and windows at Gremlin are monitored by the former "Frogs", as are lighting and air conditioning.

From the research and development stage, the game goes to test marketing.

Part of that testing goes on within the company, with games placed throughout the plant for employees to use during coffee breaks.

"Basically, we put the games out for our people to enjoy," Fogelman said. "But if we put out something new, we can watch and see if the concept is coming across, if the game is easily understood and the operation goes smoothly."

After testing, the company gears itself for production. "If we have more than two games that appear to be good bets," Fogelman explained, "we'll release two and stagger the release of the others. We have marketed more at one time, but we've found it best to concentrate on one or two. And it's a lot easier to produce one at a time than 10."

Fogelman says this is the general practice in the industry. Even the giant Atari markets only a couple games at one time. However, with each game having an average life of about four years, it's likely that any particular arcade might have several games from the same company.

"If you go over to Spanky's on Midway Drive," Fogelman said, "you'll see

## PUBLIC OFFERING

# Young medical electronics company tries public market

By Rick Rowden

G&T Laboratories Inc., La Jolla makers of electronic screening devices to detect breast cancer, has received preliminary, verbal clearance from the Securities Exchange Commission (SEC) for its prospectus in a \$40,000-share offering, according to Mike Corson, vice presi-

dent of operations.

The offering is contingent upon clearance by the SEC of the company's registration statement. The underwriter is Laidlaw, Adams and Peck, a New York investment banking firm.

According to the prospectus, the company was formed in October, 1978, and as of March 31, 1980, had an accumulated deficit of \$2.34 million and

a negative capital position of \$329,092.

During the year ended March 31, 1980, the company had a net loss of \$1.35 million and lost an additional \$321,875 during the three months ended June 30, 1980, the prospectus said.

As of June 30, 1980, the company had an accumulated deficit of \$2.67 million and a negative working capital position of \$605,382, it said. "The company is

continuing to operate at a loss, and, without receipt of the proceeds from this offering, the company will be able to meet its financial obligations as they mature for only a limited period of time."

Corson said that without the stock offering, the company would be unable to continue. He said that marketing expenses and research and development, \$573,773 and \$899,604 respectively,



eight or nine of our games. Over at University Town Centre, there are Gremlin games are also in use at Sega centers, at Fashion Valley Mall and at the Fashion Valley Mall.

Gremlin's games are sold through a distributorship. The retail price of a video game ranges from \$50 to about \$5,000, with some exceptions on the high end.

"One of the hardest things to do," Fogelman said, "is to define a good game idea. We never really know, sometimes we think we have a surefire winner, and it doesn't work out. Sometimes we have something we're less enthusiastic about and it turns out to be a top piece."

There are some common elements. The game has to be visually appealing. It has to be relatively simple to play, and yet offer a continuing challenge. Once a player masters a game, it is generally believed, he's through with it.

"What we've done now, is to develop a multi-phase game, with several rounds of play. When a player masters one level, he moves on to another. We have some games with up to 10 levels of skill or difficulty."

"Of course, this makes for a more sophisticated game. Only through the computer in each game can we do this."

The industry is very concerned with its image on a couple of fronts. "We try to avoid showing killing," Fogelman said. "Our carnival game is essentially a shooting gallery. But when you shoot a bear, you don't kill him, he stands up and growls at you. I have animals of my own. I certainly wouldn't want to see rabbits getting shot and dying in my own shooting gallery."

Some years ago, a Santa Clara-based company called Exidy offered a game called "Death Race." In that game, the car was in an automobile and the driver was to drive around and hit as many pedestrians as possible in the time allotted. Whenever the driver struck and killed a person, a tiny cross would appear on the screen, commemorating the pedestrian's passing. Some games have been known to offer simulated screaming from victims.

"Death Race" was a very popular game, but it generated some negative publicity that the amusement industry wants to avoid.

Another image problem is that game machines have long been associated with organized crime, especially in the distribution end.

Fogelman defended his industry. "There may have been truth to that conception at one time, but in my decade in the business, I've seen none of that."

To help bridge the image gap, manufacturers and distributors often donate games to hospitals and charity organizations. Some games are re-mounted to

allow for play by handicapped people. Game rooms and arcades are encouraged to sponsor special benefit nights for charities, offering special rates. Fogelman also claimed that some games have been used in hospitals as aids in improving hand-eye coordination.

Naturally, with a viable game concept worth millions of dollars, security within the industry is tight.

"A few times a year, we have conventions where we show off our machines to interested buyers, and competitors get a look at them as well. Sometimes we'll open up the machine to show a buyer, and a competitor will take pictures of the insides. Circuit boards have been known to be stolen."

"We won't show a game until it's just about ready to go on the market," Fogelman explained. "Up to that point, we're concerned about leaks here. It's like pirating records. The most common problem is when someone gets a hold of one of our games right after it's introduced; buying an early model and having it copied. Our distributor network is aware of this, and try to be careful who they deal with."

Even with precautions, piracy abounds. Most companies are involved with legal action at one stage or another. Fogelman admitted that Gremlin is considering litigation in a few instances, although no steps toward courtroom confrontation have yet been taken.

One of the ways in which copying is discouraged is through copyright. At Gremlin, each machine is presented for patent with an accompanying videotape documenting the machine's appearance, method of game play, and technical aspects. To this end, Gremlin has its own studios, writers, photographers, and filmmakers.

The in-house studio does not limit itself to copyright documentaries, however. Videotapes are used for marketing purposes as well, and Gremlin was recently one of five companies honored by AT&T at a videotape festival in New York, for its use of the medium.

A successful game will market in the thousands. Gremlin's biggest success so far is its carnival game, which has 15,000 in circulation, and is still selling.

Fogelman himself is an avid game player. "My own favorite is one of our old games, called 'Digger.' It's a survival game, you map out strategies, digging holes to trap animals."

"It can be very relaxing," Fogelman said. "It can take your mind off business. Sometimes I'll go out at the end of the day and just start playing."

"Sometimes," he admitted, "you'll find me out there even during the day."

accounted for \$1.47 million of the accumulated deficit.

The planned offering would be a unit sale, each unit comprising one share of common stock plus a warrant at a total tentative cost of \$5. The warrant could be exercised within five years for the purchase of a second share of stock at the issuing price. The prospectus described an investment as speculative.

Richard J. Reilly, chairman of the board, and Jim Ryan, M.D., a Chicago physician, acquired control of the firm in 1977 from David B. Phillips, inventor of the device, who still serves as consultant, according to James P. Kelley, a

ment, Reilly owns 29.5 percent of the outstanding shares, Ryan 15.1

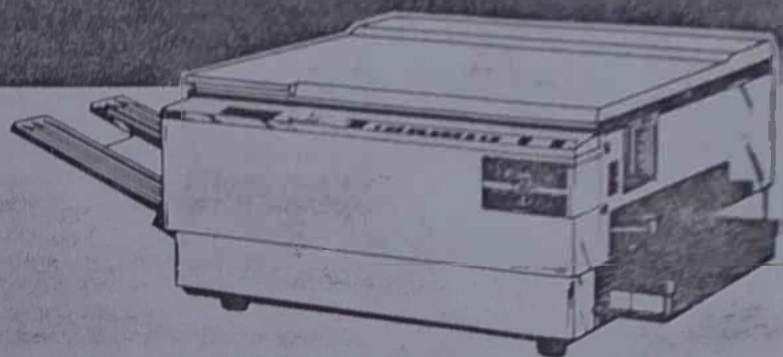
percent and Kelly 4.8 percent. There are a total of 1,128,705 shares outstanding.

A suit in federal court is pending against the firm filed by Robert Bodkin, a former president of the firm. The suit is based on alleged back salary owed, and he claims he was not given, as promised, a five percent interest in the firm when he was employed.

The GST system has not been in use long enough for definitive evaluation, according to the prospectus. Corson said more than 60 physicians are using the device, some of them for more than three years.

The company employs 15 persons and leases 4,000 square feet of space in the Torrey Pines Research and Business Park.

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eight or nine of our games. Over University Town Centre, there are 100 Gremlin games are also in use at two Sega centers, at Fashion Valley and Airport Village.

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